(3.11) Social Resources

(3.12) Recreation

(3.12a) Existing Condition and Resource-Specific Information

Recreation in the Huron-Manistee National Forests

The Huron-Manistee National Forests serve as the "backyard" playground for many Midwest residents. More than 60 million people are within a day's drive of enjoying recreation opportunities on the Forests. Proximity to population centers and accessibility due to road densities makes the Forests popular for year-round outdoor recreational activities. Population growth for the Manistee National Forest impact area (a nine county area) was 15.4% during 1980-2000. Muskegon and Newaygo Counties had the largest absolute growth accounting for 54% of the impact area's growth (Social and Economic Assessment for the Michigan National Forests 2003).

The Forests receive approximately 3 million visits annually (Recreation Demand and Capacity Trend Analysis, Huron-Manistee National Forests 2004). Of these visits, approximately 1 million are distributed evenly between motorized and non-motorized trail use. Overall, the trend for outdoor recreation indicates a continued growth in the demand for opportunities, facilities, and services (Cordell 1999). According to the report by Cordell (1999), the five fastest growing outdoor recreation activities through the year 2050 (measured in activity days) are expected to be: visiting historic places, downhill skiing, snowmobiling, sightseeing, and wildlife viewing.

The recreation niche of the Huron-Manistee National Forests is to provide quality recreational opportunities on nationally recognized rivers, trails, and special areas, motorized and non-motorized trail systems, and some areas where forest visitors have a probability to recreate away from the sights and sounds of human activities. Most lands have features typical of the Roaded Natural class of the Recreation Opportunity Spectrum. Roaded natural areas provide a variety of developed recreation opportunities at campgrounds, water access sites, picnic sites, observation areas, visitor centers and other facilities.

The Huron-Manistee National Forests have qualities and resources that support our recreational niche that include:

- Designated and proposed Wild and Scenic Rivers, the North Country National Scenic Hiking Trail, Lumberman's Monument Visitor Center, Nordhouse Dunes Wilderness Area, River Road National Scenic Byway, and the Loda Lake Wildflower Sanctuary;
- Trail systems supported by a network of partners that assist in the construction and maintenance of motorized and non-motorized trails;
- Blocks of land designated for semiprimitive management that provide areas for recreationists seeking a more remote experience; and
- Camping areas, trailheads, water access sites, and day use areas that support water-based and trail-based recreation opportunities.

The Savanna Ecosystem Restoration Project Area is located in the Semiprimitive Nonmotorized and Rural Management Areas. The Semiprimitive Nonmotorized setting is typified by National Forest System lands which are more remote and not as accessible by motorized vehicles. These areas are characterized by a predominantly natural or natural-appearing environment. Concentration and interaction between users is low. Nonmotorized use is emphasized. Closed roads may be evident and some may be utilized as trails. The Rural setting is typified by National Forest System lands which are less remote than roaded natural areas. Ownership patterns are often scattered with a mix of agricultural lands, private woodlots, and forested National Forest lands. Human activities such as vegetation management, structures, utility corridors, mineral exploration, and development are evident and harmonize with the surrounding environment. Interaction between users is frequent and there are few opportunities to test primitive outdoor skills. These areas are often isolated and near larger population centers, such as Fremont, Muskegon, and Hesperia.

People recreate in the Savanna Ecosystem Restoration Project Area because of the variety of natural resources that are present. The combination of topography, water resources, vegetation, and access found within the Project Area provides a variety of recreational opportunities, both motorized and non-motorized. Some of the recreational uses of National Forest System land that occur include: hunting for deer, bear, turkey, small game, and grouse; fishing; gathering forest products; driving for pleasure; camping; observing wildlife; hiking; horseback riding; mountain biking; canoeing; boating; kayaking; tubing; and snowshoeing and cross-country skiing in the winter. Recreational opportunities in the Project Area fall within the Forests' niche.

Recreation in the Savanna Ecosystem Restoration Project Area

The entire White River Semiprimitive Nonmotorized Area (WRSNA) is within the Project Area. National Forest System (NFS) lands within the area are comprised mostly of large, contiguous blocks. Recreational use, such as dispersed camping, hunting, and horseback riding, is high throughout this area. The majority of the roads under the jurisdiction of the Forest Service are currently or seasonally closed; however, county roads are present and open throughout the WRSNA. Because there are very few open roads, motorized access is limited. There are few blocks of private land and, of these, uses include seasonal residences and forested lands used primarily for hunting. Access to the private in-holdings is maintained via a permit issued by the Forest Service. Firewood cutting is not allowed in the WRSNA, and the harvesting of forest products from NFS lands is generally low.

In the last ten years, use by horseback riders in the WRSNA has steadily increased and signs of that use are evident throughout the area. Currently, there is moderate use of the area by horseback riders (mostly on weekends) involving both trail riding and overnight camping. Organized rides that attract larger groups of riders are becoming more common.

In the WRSNA there is a user-developed parking and camping area in the northeast corner where continuous use has denuded the area of vegetation and created a sand blow-out. Vehicles and horse trailers routinely become stuck in the sand causing the impacted area to increase in size. A system of undesignated horse trails have been created by users throughout the WRSNA. Many of these trails are single lane; however, many people also ride horses on the open forest and county roads. Some of these user-created trails are entrenched and heavily eroded with

areas leading down to the White River for watering horses and crossing the river, causing soil compaction, bank erosion, and vegetation loss. Some trails have also been developed along hills with a slope greater than 20%. The "river trail" has become very popular with horse users. This trail follows the banks of the White River from near the Pines Point Picnic Area to the North Branch of the White River on the west side of the WRSNA. Much of this trail is located in Management Area 9.2, Study Wild and Scenic Rivers. Standards and guidelines for Management Area 9.2 allow for non-motorized trails as long as the qualities for which the river was proposed for study are maintained. See Map 3.6 -Existing Condition and Alternative 1 for the WRSNA.

Horseback riding is also accompanied by RV camping, with many recreationists preferring to camp in groups. This form of camping is also common during the fall hunting season. Most of the camping is currently in open areas adjacent to County and Forest Service roads. Some camping is occurring in occupied Karner blue butterfly (KBB) habitat or in areas proposed for habitat creation. RV camping and horse trailers require large open areas to set up and turn around. These needs have resulted in the development of large dispersed campsites throughout the WRSNA. Currently, there are 38 inventoried user-created campsites in the WRSNA ranging in size from small to extra-large. The total area of soils and vegetation impacted by these campsites is 9.1 acres. Campsite locations and information, such as site dimensions, are shown on Map 3.7 and Table 3.36.

Historically, hunting and fishing have been very popular recreational activities within the WRSNA. Hunters utilize the existing camping areas during the fall deer hunting season. They also use many of the roads and trails for access to their hunting areas. Anglers, however, mostly prefer to use the area by day, utilizing the campsites and pull-offs to park and gain access to the White River for fishing.

Arthur Rd Rites hard Campground Map 3.6: WRSNA Existing Condition 60 2005 HAY HIDST User Created "River Trail" Nonmotorized County Roads - OPEN Format Road Number Paved Road - OPEN Private Land Forest Land Legand Carlo 8306

Children

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Otto Township T13N R16W Greenwood Township T13N R15W Oceana County, Michigan

Forest Reads - CLOSED to

All Motorized Vehicles OPEN to Foot Travel

Dispersed Parking

0.

Forest Roads - Currently OPEN to Cars and Trucks o Miles

12 Otto Tevenakip T13N-R1EW Greanwood Tevenattip T13N-R1EW Oceans County, Nichtigan . Savanna Ecosystem Restoration Project White River Semiprimitive Area ħ Map 3.7: WRS NA Existing User-Created Dispersed Campsites 168th Aye 160m Ave Ħ ħ BINI Camping 90 ñ HOST BEAUTY WHILE KING ted 0 Grea Dispersed **Existing Condition** USFS System Lands Campsite Map Other Ownersty - County Roads Potent Roods Anna Streeting Campaites User puscey By Size EI

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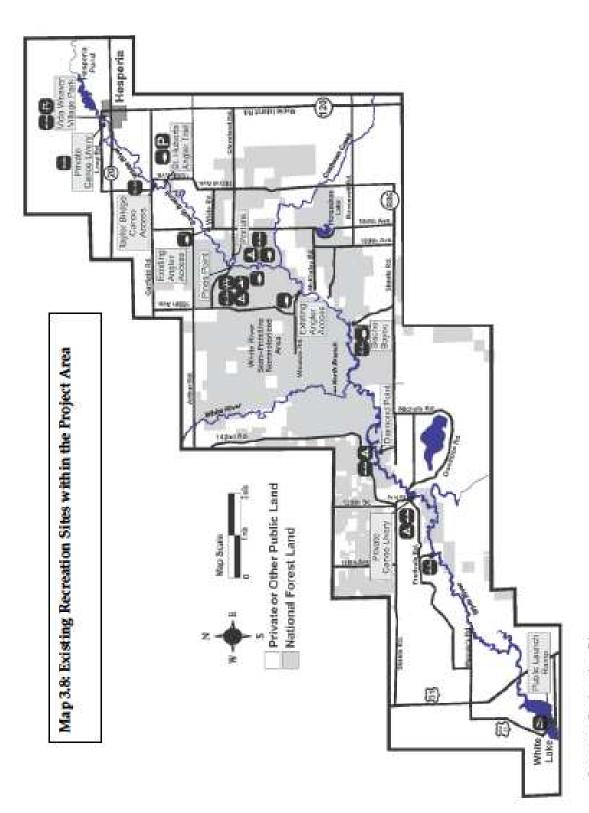
Table 3.36: Existing Numbers and Types of Campsites in the Project Area

Campsite Type	Campsite Size (feet)	Campsite Area (sq. feet)	White River Area	Otto Area	Project Area Total
Small	30 x 40	1,200	3	19	22
Medium	40 x 50	2,000	16	9	25
Large	60 x 80	4,800	12	7	19
X-Large	1 acre+	43,560	7	3	10
Total Number			38	38	76
Total Acreage			9.1	4.7	13.8

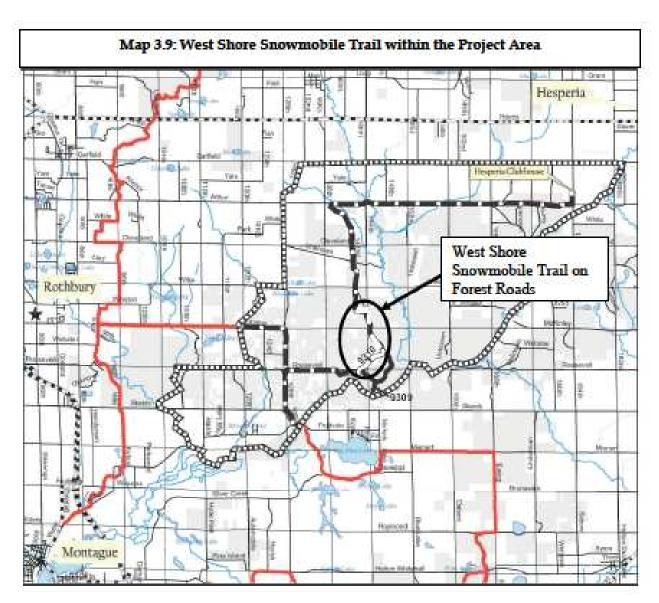
Typically, in semi-primitive non-motorized areas there are few developed recreation sites. There are currently none in the WRSNA, however, there is one adjacent and within the Project Area; Pines Point Recreation Area. Pines Point is a developed campground which has 27 family sites with paved parking spurs, 5 group sites, flush toilets, a carry-in watercraft landing, and a picnic area on the White River. This campground is currently managed under a special-use permit with American Land and Leisure, Inc. There are numerous other developed recreation sites on National Forest lands on the White River, located just outside of the Project Area, that provide access for boating, canoeing, kayaking, tubing, camping, and fishing. These include: St. Hubert's, Podunk, Sischo Bayou, and Diamond Point. These developed sites offer both walk-in and motorized access to the main branch of the White River. Two other river access sites, Taylor Bridge and Fruitvale Road, are located on county land just outside of the Project Area (see Map 3.8). Although none of the sites that are listed are located within the WRSNA, they are directly across from this area and provide access to recreationists floating or fishing the river and areas for camping. The development level and recreational opportunities available at these sites would not change with any of the alternatives included in this project.

The National Forest System lands within the Otto portion of the Project Area (Rural Management Area) occur in small to medium blocks. There are no developed recreation sites within this portion of the Project Area. Dispersed recreation use, such as camping, hunting, and fishing, occurs throughout this area. There is concentrated use associated with the North and Main branches of the White River which has resulted in several severely eroded and compacted sites. Away from the river recreation use is less concentrated. The National Forest lands are easily accessed by a network of county, Forest Service, and user-created roads. In some areas, roads and concentrated use are occurring in potential or occupied KBB habitat. A total of 15 miles of the West Shore Snowmobile Trail is located on several county and Forest Service roads within the Project Area. The segments on National Forest include a .7 mile segment on Forest Road 9310 and .3 miles on Forest Road 9309 (see Map 3.9).

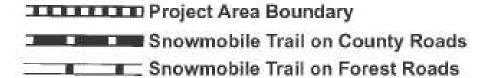
Private land uses include permanent and seasonal residences and forested lands used primarily for hunting. The hunting of wildlife is one of the top five primary recreational activities on the Forests (Social and Economic Assessment for the Michigan National Forests, 2003). The harvesting of forest products on private lands has been increasing. There is also a moderate amount of firewood cutting by private individuals that occurs within this area.



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West Shore Snowmobile Trail within the Savanna Ecosystem Restoration Project Area



The hardwood stands located in the Otto portion of the Project Area are ideal for woodcutters because of the proximity to residential areas.

There are currently thirty-eight dispersed campsites in the Otto Project Area (see Map 3.10 and Table 3.36). The existing sites consist of 19 small, 9 medium, 7 large, and 3 extra-large campsites. The total area of impact is 4.7 acres. The restoration of some of these sites will be done in 2012 through a grant from the State of Michigan's Off-Road Vehicle Trail Improvement Fund. The sites included in this grant are user-created and are causing severe impacts to the soil and vegetative resources. Refer to Chapter 3, page 3-126, for a disclosure of effects this impact would have on the soils.

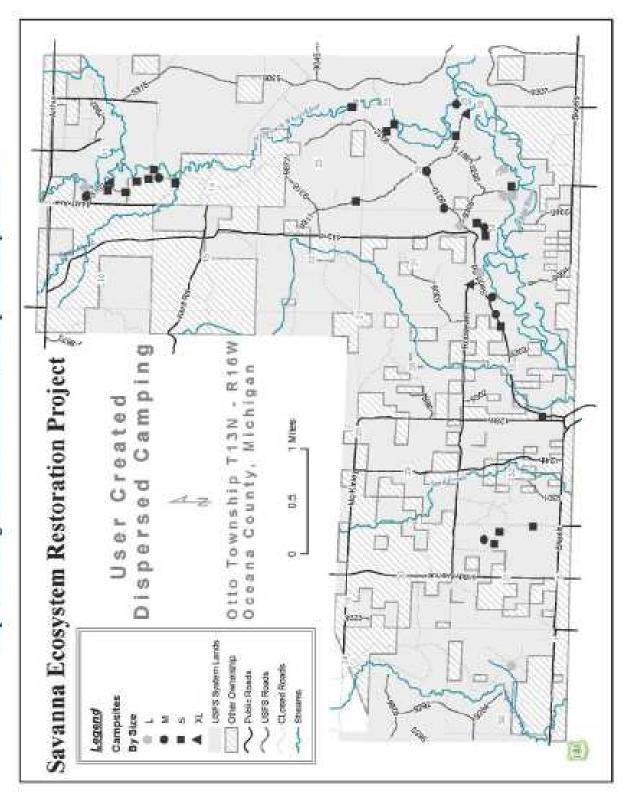
The towns or villages within ten miles of the Project Area include Hesperia, Rothbury, Montague, Whitehall, Holton, and New Era. Recreational use in the Project Area is expected to increase as the population continues to increase. Population growth for the Manistee National Forest impact area (a nine county area) was 15.4% during 1990-2000 (Social and Economic Assessment for the Michigan National Forests, 2003).

There are approximately 137 miles of Forest (classified and unclassified), county, and private roads within the Project Area. There are approximately 46 miles of Forest Service system roads shown on the Motor Vehicle Use Map (MVUM) and county roads adjacent to National Forest lands within the Project Area. In the 6.1 Management Area (MA) there are 22 miles of roads on National Forest lands and 24 miles in MA 4.4.

The scenery of the National Forest System lands in the Project Area is characterized by mostly level terrain with interspersed streams, rivers, lakes, wetlands, and forested stands. These stands include red pine, aspen, and hardwoods. There is an increasing number of semi-open mixed oak savanna areas interspersed within the forested stands of the Project Area, as efforts towards creating KBB habitat have been underway for over 10 years. Areas along the North and Main Branches of the White River are popular with recreationists, as the rolling terrain in these areas offers an increased amount of viewing opportunities.

Undesirable uses in the Project Area (both on National Forest and on private lands) include: trash dumping, illegal cutting of firewood, construction of permanent hunting blinds, and illegal off-road vehicle use. Additionally, within the WRSNA area there is illegal motorized use behind barriers and gates. Trash dumping occurs throughout the Project Area along many of the Forest roads. Recent clean-up efforts by locally organized groups have reduced the amount of trash that is present and the number of dump locations, as compared to the historic levels in this area. Permanent deer blinds are found throughout the Project Area. The illegal off-road vehicle use that is occurring both on National Forest and private lands throughout the Project Area is causing erosion and sedimentation in certain locations, especially on steep hillsides and drainage crossings.

Map 3.10: Existing Condition of User-Created Dispersed Campsites in Otto



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(3.12b) Area of Analysis

The actions included in this project that would affect the recreational resources are within the Project Area boundary. Therefore, this serves as the analysis area used for the direct and indirect effects discussion. The analysis area used for the cumulative effects discussion is Oceana County. This area provides a reasonable distance from the Project Area and is sufficiently large enough to display the recreational opportunity types available and how they would be influenced by the changes to the recreational experiences that would occur as a result of this project.

(3.12c) Alternative 1: The Effects on Recreation

(3.12d) Direct and Indirect Effects

Alternative 1 is the No-Action Alternative. Under this alternative, none of the proposed savanna creation/restoration, prescribed burning, timber, herbicide treatments, recreation, or road management activities would occur. Therefore, no direct impacts to recreationists and their use of National Forest System lands related to management activities in the Project Area would be expected. Recreationists would not be displaced during times of management such as prescribed burning, savanna creation/restoration, timber harvesting, or herbicide application. Nor is it likely that recreationists currently utilizing the Project Area would seek alternate areas for use. Those users looking for semi-primitive non-motorized recreation would need to look elsewhere for that experience.

In the short-term, current levels of recreational use would continue with seasonal peaks during summer and the fall hunting months. Recreational use of this area is expected to increase over time as more people move to Oceana County or learn about this area; however, the types and amounts of recreational opportunities available in the Project Area would not change. An increase in acreage of soil compaction, degraded Karner blue butterfly habitat, and non-native invasive plant species would be expected as the size and number of user-developed campsites increased and the user-developed trail system expanded into new areas. Impacts to the water quality of the White River could occur from runoff from campsites and trails/roads located on its banks (see Maps 3.6-3.10).

In the long term, indirect recreational impacts would occur due to a decrease in hunting opportunities for species favoring early successional forests and openings. Areas of non-native invasive species would continue to expand, displacing native vegetation favored by wildlife and potentially effecting species diversity. The occurrence of wildfire may become more frequent and intense, as more people begin to use the area and the areas needing a control burn to reduce fuels would not receive them.

Under Alternative 1, the expansion of the existing road system, especially in the Otto portion of the Project Area, would be expected. This would cause an increase in the potential for trash dumping and impacts to occupied habitat and stream banks. Off-Road vehicle use would continue and new areas of off-road damage, especially along the White River, would likely occur. Current levels of non-motorized uses (such as camping, hunting, and horseback riding) would continue and would likely increase and expand into new areas. User-created campsites

would continue to be developed along forest and county roads throughout the Project Area. The road systems, especially within the White River area, would see some deterioration as more people use the area. This deterioration would be most evident on the roads that receive high levels of mixed use (horses and motor vehicles). No changes to the West Shore Snowmobile Trail would occur.

No human-caused changes to the scenery of the National Forest System lands would occur in this Alternative. Development of private lands is expected to continue with the result being a change in the character of the area from a natural appearing to a more rural setting. Human use and activity would continue to increase on private lands with a potential increase in the encroachment on public lands from private land activities.

(3.12e) Cumulative Effects

Impacts from recreational use and demand for additional facilities and amenities are expected to increase as the population of Oceana County and surrounding areas increases and more people reach retirement age having more time for recreational pursuits. Existing recreational uses of the area would continue and it is likely that new uses would emerge in time. It is expected that for the foreseeable future, horseback riding would continue in the Project Area, particularly in the area of the White River. Occupied and potential KBB habitat would continue to be impacted. Camping and driving for pleasure are activities that would also continue potentially impacting soils, water quality of the White River, occupied or potential KBB habitat, and native vegetation. Users could be affected by their feeling of overcrowding and inability to find places to recreate in a semi-primitive setting. Overcrowding on some of the non-motorized trails could result in a greater frequency of accidents and more severe impacts to the resources on and along the trail system.

The private lands within the Project Area are currently a mixture of permanent and seasonal homes along with undeveloped land. The conversion of seasonal to permanent homes has been occurring at an increasing rate as the population ages and people retire "Up North." This trend is expected to continue in Oceana County with the development of private lands accelerating as people build new homes or convert cabins to year-round residences. Twenty percent of seasonal home owners were "likely" or "very likely" to convert their seasonal residences to a permanent home within the next 5 years and the number increased to almost 30% when the timeframe was extended (Leefers, et. al. 2003). This conversion from seasonal to permanent use will likely increase the number and types of recreationists in this area. More recreationists would result in more impacts to and pressure on public facilities and resources in the Project Area. More use would increase the potential for overlap of users that may be seeking different types of experiences. This would increase the potential for conflict.

(3.12f) Alternative 2: The Effects on Recreation

(3.12g) Direct and Indirect Effects

The number of acres of savanna creation/restoration, timber harvesting, prescribed burning, and non-native invasive treatments is the same for Alternatives 2 and 3. The two action alternatives differ in response to actions related to the recreational use that is occurring,

particularly within the White River portion of the Project Area. Actions related to recreational use under Alternative 2 include: (see Map 3.11)

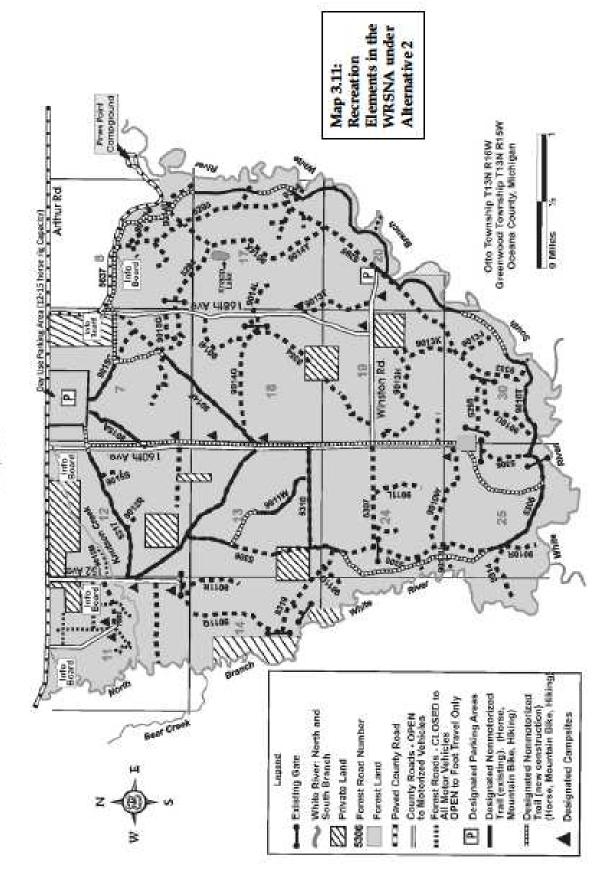
- Complete the road closures in the White River Semiprimitive Nonmotorized Area (WRSNA) by closing approximately 10.0 miles of Forest Service roads. This would limit motorized access in this area to the existing Oceana County road system.
- Designate approximately 19.7 miles of both single and double lane trail within the WRSNA for non-motorized uses, with an emphasis on hiking and horseback riding.
- Develop a 10-15 vehicle and trailer parking area off of Arthur Road for Day Use in the
- Limit watering of horses (using buckets) to identified locations and water sources on National Forest System lands.
- Require the removal of horse manure, feed, and bedding from the designated parking and camping areas.
- Develop a parking area for motorized vehicles at the east end of Winston Road for walkin access to the White River.
- Designate 11 campsites for motorized camping in the WRSNA.
- Implement a Forest Supervisor Closure Order for the WRSNA that would require that horses remain on designated trail, limit motorized camping to designated sites, and restrict day-use parking for horse use to the designated parking area on Arthur Road.
- Manage the roads in the Otto portion of the Project Area in accordance with the Motor Vehicle Use Map (MVUM 2009) with the following exceptions:
 - 1. FR9301: This is a north/south road that runs north of Skeels Road and lies west of Sand Creek. All of the property bordering Sand Creek in this area is in private holdings where the road dead-ends and on-going management activities are in conflict with the existing location of the road. This road would be eliminated from MVUM, gated, and put under a Special-Use Permit.
 - 2. FR9320: This is an east/west road that runs east off of 128th Avenue, before connecting with Kent Road on private property to the east. Under Alternatives 2 and 3 the portion of this road on National Forest System lands would be added to the MVUM.
- Manage the roads in the WRSNA portion of the Project Area in accordance with the Motor Vehicle Use Map (MVUM 2009) with the following exceptions:
 - FR5295: This is a north/south road that runs along the main branch of the White River. This road would be eliminated from MVUM, gated, and used to access KBB habitat restoration areas.
 - 2. FR9353: This is a short north/south section of road at the south end of FR5295 that goes to the White River through KBB occupied habitat. This road would be eliminated from MVUM, gated, and used to access KBB habitat restoration areas.
 - FK5306: This is an east/west and north/south road that runs along the main branch of the White River and goes through occupied KBB habitat. This road would be eliminated from MVUM, gated, and used to access KBB habitat restoration areas.

- FR5315: This is a north/south road on the west side of the WRSNA. It
 provides access to two parcels of private property. This road would be
 eliminated from MVUM, gated, and put under a Special-Use Permit.
- FR7992: This is a short east/west segment of road in the northwest corner of the WRSNA. This road would be eliminated from MVUM to implement the semi-primitive nonmotorized designation.

Under this Alternative, there would be approximately 2,542 acres of forest converted to savanna over the next 10 years. Savanna creation activities would include partial tree/stump removal, followed by burning, site preparation, and seeding to restore and increase the diversity and density of native plant species. The savanna creation may lead to increased damage from illegal use of ORVs due, in part, to the more "open" appearance of these areas. This may also encourage more illegal dispersed camping. However, these areas would be posted closed to all camping, horseback riding, and other forms of non-motorized activities except foot travel. Mitigation techniques (such as piling brush around the perimeter or the installation of barriers) would decrease the likelihood of illegal activity. Vegetative treatments in the savanna creation areas would present opportunities to educate the visiting public about restoring native plant communities and the recovery efforts for the endangered Karner blue butterfly.

During savanna creation/restoration, prescribed burning, and timber harvesting activities, recreationists would be temporarily displaced. Impacts from burning would be of short-duration and limited to 1-2 days. Some historic dispersed campsites would be closed in the WRSNA, as all motorized-dependent camping would be limited to designated sites only. Some of these designated camping areas would be less shaded (in comparison to the existing sites) and the sights and sounds of logging/savanna creation and restoration operations would be observed by recreationists for short periods of time. Walking through the vegetation treatment areas would be difficult for the first few years after the completion of treatment activities due to the presence of slash and stumps. In the long-term, there would be an increase in hunting and wildlife viewing opportunities, due to creation of a more diverse forest with openings and improved habitat for game and non-game species. The timber treatments throughout the Project Area would likely be completed in three to five years. However, the savanna creation and restoration activities would not be completed for 10 years, with maintenance activities occurring beyond 10 years.

Under Alternative 2, mechanical, manual, and/or herbicide treatment of non-native invasive species would occur on ~42 acres scattered throughout the Project Area. The infested areas of non-native invasive species (NNIS) are small and generally isolated. The effects of herbicide treatment would be of short-duration and limited to 1-2 days in the early spring. Recreationists may be temporarily displaced during (and shortly after) the time of herbicide application. Natural succession and the re-growth of plants would return the treated areas to a more natural appearance during the next growing season. Temporary visual impacts (such as bare spots) would be expected to last no longer than a single growing season, after which they would be obscured by the native vegetation.



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Alternative 2 proposes to close ~10.0 miles of roads to complete implementation of the WRSNA designation. This alternative would also leave Forest Road 9310 open year round. Parking and turn-around areas would be provided where roads are closed. Non-motorized activities (such as hunting or hiking) would be allowed in all locations unless posted closed. The proposed road closures would reduce the amount of roads to access the Project Area for driving for pleasure; however, approximately 36.3 miles of Forest Service and county roads would remain open to provide access for recreation activities within the Project Area. Those who use the existing road system to recreate would be directly affected by the closing of roads within the Access within the Project Area by vehicle would be most limited in the WRSNA. Road closures would displace recreationists in the WRSNA, but would provide opportunities for walk-in hiking, backpack camping, hunting, and horseback riding where designated. The concentration of motor vehicle use on fewer roads in the WRSNA would impact those roads left open. They may see an accelerated decline in condition as more people use fewer roads. Some of the closed roads would be incorporated as part of the non-motorized trail system; therefore, having a positive effect on recreation use.

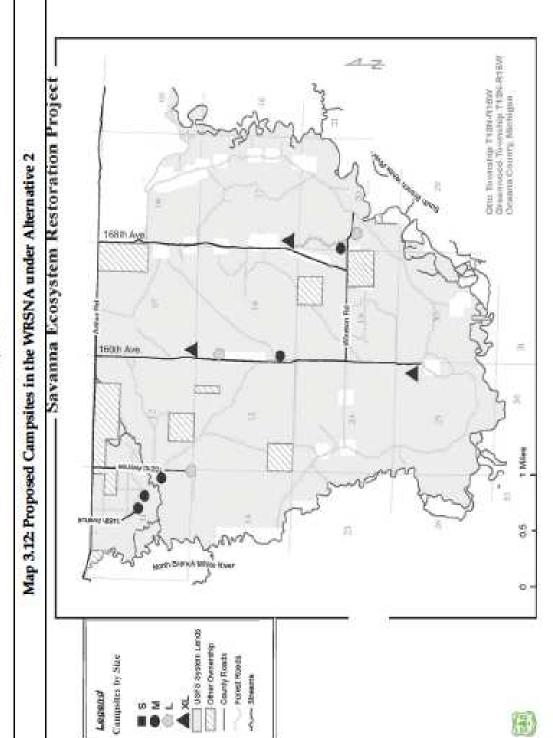
Opportunities for viewing wildlife may increase because of reduced disturbances to wildlife from motorized vehicles. However, there would be fewer areas available for the establishment of motorized-dependent camps within the WRSNA (both hunting and horse-related). Some recreationists may choose to move outside of the WRSNA to other areas that would provide more road access. For example, opportunities in the Otto portion of the Project Area may be more attractive to recreationists (refer to Map 3.10). Safety would increase in the entire area as those roads that are unmaintained, user-created, or are in an unsafe condition would no longer be open. Illegal off-road vehicle (ORV) use would be expected to stay the same or may possibly increase with the implementation of this alternative's transportation system, as riding temptations may be increased where KBB openings are closed. Trash dumping would be expected to decrease through the closure of roads. It is expected that an increase in law enforcement efforts would be necessary throughout the entire Project Area to offset the possibilities of illegal activities.

As discussed in the existing condition, the WRSNA in the last several years has become a popular area for horseback riding and camping. The most favored horseback riding trail is the user-created trail along the White River (located partially in Management Area 9.2 - Candidate Wild and Scenic Study Rivers). The designated trail proposed under Alternative 2 would utilize portions of this user-created trail and portions of closed roads. In addition new trail construction would be necessary to parallel open county roads and to develop the trail connectors. Some of the trail would require riders to ride in single file with other stretches allowing for side-by-side riding.

Restricting horseback riders to a designated trail system would concentrate the use in a smaller area than currently exists. This may change the social dynamics of the existing condition. To some recreationists this would be a negative impact as users would see more people on the trail. To those horse riders who are interested in a more "social" experience, this would be a positive impact as they would see more people to potentially socialize with on the trail. Those riders who enjoy "striking out" and riding a different route each time could be displaced to other areas of the Forest or may not ride as frequently in this area.

Concentrating use on a single trail system would likely compact soils, widen and deepen the tread, possibly widen the trail corridor, increase the erosion of soils, increase the amount of manure on the trail, increase the run-off of animal waste into waterways, and possibly increase non-native invasive species along the trail (Pickering, 2009). The combination of trail designation, site design, and the implementation of conservation measures would reduce the impacts from what is currently occurring from unmanaged use in the entire WRSNA. Alternative 2 would provide approximately 12.2 miles of single-track riding and 7.5 miles of double lane riding opportunities where no motor vehicles would be present. This would provide those riders who enjoy the "social" aspects of riding the opportunity to enjoy the company of others while they ride. Overall recreation use may be reduced in the short-term as the existing use is directed to a designated system and day-use parking is limited to the developed parking area on Arthur Road. However, in the long-term more people may use the trail because it would be well-defined and safe (i.e. constructed and maintained to USFS standards). In addition, the development of a map showing the location of the trail system, campsites, and parking areas could increase the recreational day riding in the area. Some users would choose to find other areas on National Forest lands where there are no parking or riding restrictions. They may choose to ride on county roads throughout the project area. This may place increased pressure on the county road system. The impacts of their activities on the road resource itself may become greater. Additionally, the increase in the dual use of both horseback riders and motor vehicles on county and forest roads may result in additional safety concerns.

There are 38 campsites identified in the WRSNA that are currently being used by different groups throughout the year. The majority of the existing 38 campsites are located in, or adjacent to, the treatment units proposed for savanna creation or restoration. This alternative would limit motorized dependent camping to 11 designated sites (see Map 3.12) that are not located in KBB occupied habitat or in savanna creation areas (Forest Plan, II-26 to II-39). The 11 designated sites range from medium to extra-large in size (refer to Table 3.6).



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Opportunities for camping within the WRSNA would be reduced, but would remain unchanged in the Otto portion of the Project Area. Riders and hunters that have not been limited in their choice of camping areas in the past could face competition for the larger or more popular sites. A limited number of campsites could result in users "reserving" sites and a need for more law enforcement to ensure sites remain first come first serve. Monitoring of camp site use would occur to determine if there is a need for a more structured system of camp site management. Some users may find alternate places to camp on private and National Forest lands.

To decrease the opportunities for the spread of non-native invasive species, this alternative would require that all horseback riders, both campers and day users, would be required to collect the hay, bedding, and manure from their campsite and parking area and remove it from National Forest System lands (Pickering 2009). This would place an additional responsibility on those who choose to ride horses in the WRSNA. This requirement could displace those users who do not want to have to clean up, which would lead to fewer users on the trails, campsites, and in parking areas within the WRSNA.

Horseback riders would no longer be allowed to take their horses into Knapp Lake or the White River, at any location, for riding or watering their horses. Alternative 2 would limit the locations for watering horses to two designated areas along the White River where horseback riders would be allowed to use buckets to get water for their horses. This action would limit run-off of animal waste into the White River and other waterways, improving water quality (Pickering 2009). This requirement would place an additional responsibility on those who choose to ride horses in the WRSNA. This requirement would displace those users who don't want limitations placed on their activities.

The implementation of the horseback trail designation and the new construction included in this alternative would require the formation of a partnership with a volunteer group (like other trail systems that occur on National Forest System lands). These groups assist in the establishment and maintenance of these systems through a combination of volunteer labor and obtaining the funding that is necessary through grants and donations. The success of implementation would be dependent on finding or formulating this group.

Under Alternative 2, a parking area would be constructed at the east end of Winston Road in the WRSNA for angler access to the White River. This would provide relatively easy access for recreationists to walk a short distance to the river for fishing. Additionally, they may choose to carry-in or carry-out watercraft from or to this location.

Under Alternative 2, the recreation activities which are proposed in the Otto portion of the Project Area would have little impact on recreationists. The vegetative treatments proposed for this area would have the same effects on recreationists as those in the WR5NA. Recreational activities currently allowed, would continue under this alternative. Some limitations on camping may be placed in occupied habitat. Recreational use may even increase in the Otto Project Area as recreationists move from the WRSNA into this area to pursue their recreational interests.

Winter recreation in the Project Area would not change under Alternative 2. There would be no designated snowmobile trail in the WRSNA. The portion of the West Shore Snowmobile Trail that is in the Otto portion of the Project Area would remain open. Winter snowshoeing, cross-country skiing, hiking, and camping would still be allowable recreational activities in both the WRSNA and Otto areas. Access to both areas would remain limited during the winter months. Currently no roads are plowed in the WRSNA and only a few are plowed in the Otto area. No Forest roads would be plowed in either area.

Implementation of Alternative 2 would create more places of solitude for the non-motorized recreationist. Recreationists who fish, hunt, ride horseback, mountain bike, wilderness camp, and hike will find many opportunities to participate in these activities in the WRSNA portion of this Project Area. These experiences are unique on the National Forest as there are few areas available for this type of experience. Consequently, this alternative would displace those recreationists who are looking for a greater motorized recreational experience; however, county roads in the WRSNA would remain open for this type of experience. The Otto portion of the project area would also provide motorized recreational opportunities.

The implementation of MVUM may have the greatest effect on users as it would displace motorized users from the areas where they have historically recreated. Users who drive for pleasure and those who rely on motor vehicles to recreate would be displaced to others area of the National Forest where there would be more motorized access available. This would provide opportunities for forest users to explore new areas to recreate.

(3.12h) Cumulative Effects

The impacts from recreational use and the demand for additional facilities and amenities would be expected to increase as the population of Oceana, and surrounding counties increases. The existing desired uses of the area would continue and it is likely that new uses would emerge in time. It is likely that recreationists may shift their use of National Forest lands from the WRSNA to the Otto portion of the Project area, or other areas of the Forest, where there would be more opportunities for motorized-dependent recreation.

This alternative will provide non-motorized recreationists with a relatively contiguous area of public land to meet their recreational needs. These areas are rare on the Huron-Manistee National Forest and are not currently available in Oceana County. This may serve to draw new users to the county to explore the National Forest. The non-motorized experience would be limited to the WRSNA, as on the other side of the White River there will continue to be motorized access for day use or overnight stays. Motorized opportunities will continue to exist in other portions of the National Forest, as well as at many private businesses on private lands.

The implementation of MVUM will change the recreational use of National Forest System lands throughout Oceana County. Through the process of identifying the official Forest road system, many of the historic roads that have been used by motorized recreationists have been made unavailable for this use. This will place increased pressure on those roads that remain open. Within this Project Area, the loss of the roads in the WRSNA will put more motorized pressure on the roads in the Otto area. With the reduction of available roads in the Otto area due to MVUM, this pressure will be further increased on the roads that remain as part of the official

system. Dispersed sites in this area may see increased user-created damage as more people use fewer accessible areas. The monitoring of these areas will become essential as project implementation proceeds.

Casual observation indicates that there is a rise in the use of horses for recreation on the Forest. On the Baldwin-White Cloud District, this is most evident in the southern tier counties (i.e. Newaygo, Muskegon, and Oceana counties). This use is coinciding with a land base that is becoming more and more fragmented, as larger blocks of contiguous private lands are separated into smaller pieces and sold. The combination of these events promotes an increase in the amount of horse use that occurs on public lands and on public roads (county and Forest). As a result of the activities associated with this alternative, the county roads throughout the Project Area will see increased use by horseback riders over time and the impacts of their activities on the road resource itself will become greater. Additionally, the increase in the dual use of both horseback riders and motor vehicles on county and forest roads may result in additional safety concerns.

Development of private land within the Project Area is expected. Twenty percent of seasonal home owners were "likely" or "very likely" to convert their seasonal residences to a permanent home within the next 5 years and the number increased to almost 30% when the timeframe was extended (Leefers et al. 2003). This conversion from seasonal to permanent use would increase the number of recreationists in this area. More people would result in more pressures on the public facilities and resources throughout Oceana County, and in the Project Area specifically. More use would increase the potential for overlap of users that may be seeking different types of experiences, increasing the potential for user-conflicts. The attractiveness of the WRSNA, the White River, its tributaries, and the "word-of-mouth" spread will likely make this area a more popular place to recreate, therefore, placing additional pressure on the natural resources over time.

(3.12) Alternative 3: The Effects on Recreation

(3.12) Direct and Indirect Effects

Alternative 3 would have the same number of acres of savanna creation/restoration, timber harvesting, prescribed burning and non-native invasive species treatment as Alternative 2. Therefore, the direct and indirect effects as they relate to these activities for Alternative 3 would be the same as what has been discussed under Alternative 2. Under Alternative 3, the activities that would relate to recreational use within the Project Area would include the following:

- Complete implementation of the White River Semiprimitive Nonmotorized Area (WRSNA) designation by closing approximately 10.0 miles of Forest Service roads. This would limit motorized access to the existing County maintained roads.
- Prohibit horses in the WRSNA.
- Develop a parking area at the east end of Winston Road for walk-in access to the White River.
- Limit motorized dependent camping to 11 designated sites and limit some forms of cross country travel in specific locations in the WRSNA.
- Manage the roads in the Otto portion of the Project Area in accordance with the

Motor Vehicle Use Map (MVUM, 2009), with the following exceptions:

The roads would continue to be managed according to the Motor-Vehicle Use Map (MVUM, 2009), with the following exceptions:

- FR9301: This is a north/south road that runs north of Skeels Road and lies west of Sand Creek. All of the property bordering Sand Creek in this area is in private holdings where the road dead-ends and on-going management activities are in conflict with the existing location of the road. This road would be eliminated from MVUM, gated, and put under a Special-Use Permit.
- FR9320: This is an east/west road that runs east off of 128th Avenue, before
 connecting with Kent Road on private property to the east. Under Alternatives 2 and
 3 the portion of this road on National Forest System lands would be added to the
 MVUM.
- FR9310: The segment of this road that is east of 142nd Avenue and west of FR9311
 bisects areas that are proposed for savanna creation activities. This segment would
 be closed to motor vehicles under Alternative 3. It would remain part of the West
 Shore Snowmobile Trail, December 1-March 15, under both alternatives.

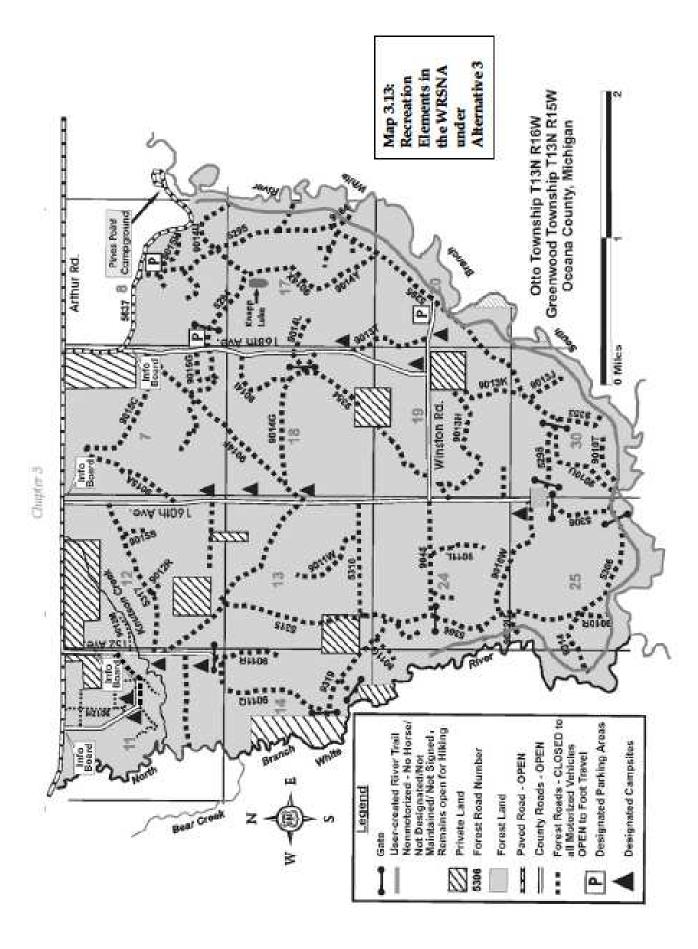
Otherwise, roads currently open on the MVUM would remain open and roads not on the MVUM would be considered closed to motor vehicle traffic.

This alternative would have the greatest negative impact on recreationists who participate in horseback riding and horse camping activities in the WRSNA because it would close the WRSNA to these activities through a Forest Supervisor's Closure Order (see Map 3.13). These recreationists would be displaced to other areas of National Forest with the closest area being the Otto portion of the Project Area. The county roads throughout the Project Area will see increased use by horseback riders over time and the impacts of their activities on the road resource itself will become greater. Additionally, the increase in the dual use of both horseback riders and motor vehicles on county and forest roads may result in additional safety concerns.

There would be no development of a non-motorized trail system in the WRSNA. However, those recreationists who enjoy hiking, mountain biking, snowshoeing, and cross-country skiing would still be able to enjoy these activities in the WRSNA, as well as in the Otto area, in areas not posted as closed. Backpack camping and hunting would still be allowed throughout the Project Area. Motorized-dependent camping would be limited to the 11 designated campsites in the WRSNA, with the effects similar to those described in Alternative 2.

The opportunities to view and hunt wildlife may improve under Alternative 3, within the WRSNA, due to the absence of conflicts associated with horse use in this area. Those opportunities would remain the same or may decrease in the Otto Project Area if recreationists choose to move to this area to participate in their chosen recreation activity.

Alternative 3 would close a 0.7 mile segment of FR9310 to motor vehicles for the snow-off season. It would be open from December 1 through March 15 for snowmobiles as a part of the West Shore Snowmobile Trail System. Therefore, those who use this road to recreate would be directly affected by the closing of this road during the snow-off season. All other road closures would be the same as in Alternative 2 and would have the same effects on recreationists and trail users.



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(3.12k) Cumulative Effects

The greatest difference between the cumulative effects of this alternative and Alternative 2 is the impacts associated with removing horses from WRSNA under this alternative. Currently, this area is offers one of the most unique riding experiences on National Forest lands in Oceana County. Those currently using this area for this form of recreation will be displaced as a result of implementing of this alternative.

The demand for additional facilities and amenities in Oceana County and the surrounding counties would be expected to increase with this alternative due to the closure of the WRSNA to horses, horseback riding, and horse camping. Recreationists who enjoy horseback riding would find other areas of National Forest System lands to ride and camp. Many may choose to go to other areas in Oceana County who provide horseback riding opportunities and could support the demand displaced with this alternative. These include: The Double JJ Ranch in Rothbury, the Rainbow Ranch in New Era, and the lands managed by the Michigan Department of Natural Resources and Environment.

It is likely that recreationists may shift their use of National Forest lands from the WRSNA to other National Forest System lands that are adjacent or close to this area where the historic recreational uses would remain available. The areas that are most likely to see this increase in use will be the Otto area and areas along the eastern side of the White River. These areas may also expect to receive the greatest impacts on the resource as dispersed horse camping areas become established in these areas. The impacts (i.e. user created trails and camp sites, non-native invasive species, and water quality concerns) would be expected to increase in this area and other National Forest areas as more people recreate with their horses. County roads will see increased use by horseback riders over time and the impacts of their activities on the road resource itself will become greater. Additionally, the increase in the dual use of both horseback riders and motor vehicles on county and forest roads may result in additional safety concerns.

The dynamics between users in the WRSNA would change over time with the implementation of this alternative. The WRSNA would see marked changes over time as horseback riding is no longer allowed. Non-horse campers, hunters, and hikers would see fewer people with the removal of horse camps and riders. This would allow for more solitude and reduced noise from the sights and sounds associated with horse riding and camping. Early fall hunters would benefit by being exposed to less users in the area at a season when horseback riding is very popular. Likewise, the interactions between these recreational user-groups would likely increase in the areas that are adjacent or close to the WRSNA due to a higher concentration of users. This would likely become less over time, once those displaced from the WRSNA find new locations on both public and private lands to recreate.

Other cumulative effects related to this implementation of this alternative would be similar to those discussed under Alternative 2.